AMENDMENTS TO THE CLAIMS

Please amend claims 1 and 12, such that the claims of the application have the following formulations and statuses:

1. (Currently amended), An arc discharge metal halide lamp for use in selected lighting fixtures, said lamp comprising:

a discharge chamber having light permeable walls and tubes of a unitary single piece structure that is free of overlapping wall structures between said walls and said tubes and being of a selected shape bounding a discharge region of a selected volume, wherein each of said tubes flares outward at an interior end thereof into a corresponding one of ~~including therein~~ a pair of end region wall portions and each of said tubes at an exterior end thereof is connected to a corresponding one of a pair of frits through each of which a corresponding one of a pair of electrodes [[are]] is affixed so that said one of the pair of electrodes is supported in a corresponding one of said tubes to have interior ends thereof positioned in said discharge region so that they are separated from one another along a common axis by a separation length, said walls having portions thereof as wall sides between said end region wall portions with said wall sides having an effective joined inner diameter at each end thereof adjacent to a corresponding one of said end region wall portions and having an effective operation inner diameter over said separation length in directions substantially perpendicular to said separation length such that a ratio of said separation length to said effective operation inner diameter is greater than two and with lengths of said wall sides between said end region wall portions being greater than said effective operation inner diameter, said end region wall portions having inner and outer surfaces so that intersections thereof with planes

containing said common axis are smooth and so that said end region wall portions are separated from said interior ends of said electrodes by more than one millimeter; and

ionizable materials provided in said discharge region of said discharge chamber, wherein said walls, said end region wall portions, said tubes, and said frits bound and hermetically seal the discharge region, and the outer perimeters of said walls, said end region wall portions, said tubes, and said frits smoothly and continuously join together to avoid discontinuous, overlapping wall structures.

2. (Original) The device of claim 1 wherein said discharge chamber is formed of walls comprising polycrystalline alumina.

3. (Original) The device of claim 1 wherein said ratio of said separation length to said effective operation inner diameter is less than five.

4. (Original) The device of claim 1 wherein said ratio of said separation length to said effective operation inner diameter is greater than three but less than five.

5. (Original) The device of claim 1 wherein said ratio of said separation length to said effective operation inner diameter is greater than four but less than five.

6. (Original) The device of claim 1 wherein said ratio of said separation length to said effective operation inner diameter is greater than five.

7. (Original) The device of claim 1 wherein said ionizable materials include metal halides.

8. (Original) The device of claim 7 wherein said ionizable materials include CeI_3.

9. (Original) The device of claim 7 wherein said ionizable materials include PrI_3.

10. (Original) The device of claim 8 wherein said ionizable materials further include NaI.

11. (Original) The device of claim 9 wherein said ionizable materials further include NaI.

12. (Currently amended) An arc discharge metal halide lamp for use in selected lighting fixtures, said lamp comprising:

a discharge chamber having light permeable walls and tubes of a unitary single piece structure that is free of overlapping wall structures between said walls and said tubes and being of a selected shape bounding a discharge region of a selected volume, wherein each of said tubes flares outward at an interior end thereof into a corresponding one of ~~including therein~~ a pair of hemispherical shape end region wall portions and each of said tubes at an exterior end thereof is connected to a corresponding one of a pair of frits through each of which a corresponding one of a pair of electrodes [[are]] is affixed to that said one of the pair of electrodes is supported in corresponding one of said tubes to have interior ends thereof positioned in said discharge region so that they are separated from one another along a common axis by a separation length, said walls having portions thereof as wall sides between said end region wall portions with an interior surface forming a truncated right cylinder having an inner diameter over said separation length in directions substantially perpendicular to said separation length such that a ratio of said separation length to said inner diameter is greater than two and with lengths

of said wall sides between said end region wall portions being greater than said inner diameter, said end region wall portions each having inner surfaces having a radius equal to half of said inner diameter which are separated from said interior ends of said electrodes by more than one millimeter; and

ionizable materials provided in said discharge region of said discharge chamber, wherein said walls, said end region wall portions, said tubes, and said frits bound and hermetically seal the discharge region, and the outer perimeters of said walls, said end region wall portions, said tubes, and said frits smoothly and continuously join together to avoid discontinuous, overlapping wall structures.

13. (Original) The device of claim 12 wherein said discharge chamber is formed of walls comprising polycrystalline alumina.

14. (Original) The device of claim 12 wherein said ratio of said separation length to said effective operation inner diameter is less than five.

15. (Original) The device of claim 12 wherein said ratio of said separation length to said effective operation inner diameter is greater than three but less than five.

16. (Original) The device of claim 12 wherein said ratio of said separation length to said effective operation inner diameter is greater than four but less than five.

17. (Original) The device of claim 12 wherein said ratio of said separation length to said effective operation inner diameter is greater than five.

18. (Original) The device of claim 12 wherein said ionizable materials include metal halides.

19. (Original) The device of claim 18 wherein said ionizable materials include CeI_3.

20. (Original) The device of claim 18 wherein said ionizable materials include PrI_3.

21. (Original) The device of claim 19 wherein said ionizable materials further include NaI.

22. (Original) The device of claim 20 wherein said ionizable materials further include NaI.